Type	Grade	Mass Tone	Reduction Tone	Color Index	Specified Color Data												Specified Technical Data			Informative Data	
					Full Shade						Reduction						Water soluble content [%]	Sieve residue [%]	pH value	Oil absorption [g/100g]	Predominant particle size [µm]
											Color values after matching of the tinting strength parameter Y, i.e.dL*=0					Rel. tinting strength[%]	DIN EN ISO 787-3:2000 and DIN EN ISO	DIN EN ISO 787-7:2009	DIN EN ISO 787-9:1995	DIN EN ISO 787-5	Electron micrograph
					dL*	da*	db*	dC*	dH*	dEab*	da*	db*	dC*	dH*	dEab*						
National Standard																					
Red Iron Oxides	101			PR 101	+/-0.5	+/-0.8	+/-0.8	+/-0.8	+/-0.8	≤1.0	+/-0.8	+/-0.8	+/-0.8	+/-0.8	≤1.0	100+/-5	≤0.5	≤0.05	3-7	15~25	0.1
	110			PR 101	+/-0.5	+/-0.8	+/-0.8	+/-0.8	+/-0.8	≤1.0	+/-0.8	+/-0.8	+/-0.8	+/-0.8	≤1.0	100+/-5	≤0.5	≤0.05	3-7	15~25	0.1
	120			PR 101	+/-0.5	+/-0.8	+/-0.8	+/-0.8	+/-0.8	≤1.0	+/-0.8	+/-0.8	+/-0.8	+/-0.8	≤1.0	100+/-5	≤0.5	≤0.05	3-7	15~25	0.1
	130			PR 101	+/-0.5	+/-0.8	+/-0.8	+/-0.8	+/-0.8	≤1.0	+/-0.8	+/-0.8	+/-0.8	+/-0.8	≤1.0	100+/-5	≤0.5	≤0.05	3-7	15~25	0.1
	140			PR 101	+/-0.5	+/-0.8	+/-0.8	+/-0.8	+/-0.8	≤1.0	+/-0.8	+/-0.8	+/-0.8	+/-0.8	≤1.0	100+/-5	≤0.5	≤0.05	3-7	15~25	0.1
	160			PR 101	+/-0.5	+/-0.8	+/-0.8	+/-0.8	+/-0.8	≤1.0	+/-0.8	+/-0.8	+/-0.8	+/-0.8	≤1.0	100+/-5	≤0.5	≤0.05	3-7	15~25	0.1
	180			PR 101	+/-0.5	+/-0.8	+/-0.8	+/-0.8	+/-0.8	≤1.0	+/-0.8	+/-0.8	+/-0.8	+/-0.8	≤1.0	100+/-5	≤0.5	≤0.05	3-7	15~25	0.1
	190			PR 101	+/-0.5	+/-0.8	+/-0.8	+/-0.8	+/-0.8	≤1.0	+/-0.8	+/-0.8	+/-0.8	+/-0.8	≤1.0	100+/-5	≤0.5	≤0.05	3-7	15~25	0.1
National Standard																					
Yellow Iron Oxides	311			PY 42	+/-0.4	+/-0.8	+/-0.9	+/-0.8	+/-0.8	≤1.0	+/-0.5	+/-0.6	+/-0.6	+/-0.6	≤0.8	100/+/-3	≤0.5	≤0.002	4.5-7.5	28~40	0.1x0.4
	313			PY 42	+/-0.4	+/-0.8	+/-0.9	+/-0.8	+/-0.8	≤1.0	+/-0.5	+/-0.6	+/-0.6	+/-0.6	≤0.8	100/+/-3	≤0.5	≤0.002	4.5-7.5	28~40	0.1x0.4
National Standard																					
Black Iron Oxides	330			PBk 11							+/-0.7	+/-0.9			≤1.0	100 -5/+10	≤0.5	≤0.1	4-8	15~25	0.5
	700			PBk 11							+/-0.7	+/-0.9			≤1.0	100 -5/+10	≤0.8	≤0.1	4-8	15~25	0.3
	722			PBk 11							+/-0.7	+/-0.9			≤1.0	100 -5/+10	≤0.7	≤0.1	4-8	15~25	0.2
	359			PBk 11							+/-0.7	+/-0.9			≤1.0	100 +/-5	≤0.5	≤0.1	4-8	15~25	0.2
National Standard																					
Brown Iron Oxides	868			Mixture	+/-0.5	+/-1.2	+/-1.3	+/-1.2	+/-1.2	≤1.5	+/-1.2	+/-1.3	+/-1.2	+/-1.2	≤1.5	100/-5/+10	≤0.8	≤0.4	4-7	20~35	0.3
	610			Mixture	+/-0.5	+/-1.2	+/-1.3	+/-1.2	+/-1.2	≤1.5	+/-1.2	+/-1.3	+/-1.2	+/-1.2	≤1.5	100/-5/+10	≤0.8	≤0.4	4-7	20~35	0.3
National Standard																					
Orange Iron Oxides	960			Mixture	+/-0.5	+/-1.2	+/-1.3	+/-1.2	+/-1.2	≤1.5	+/-1.2	+/-1.3	+/-1.2	+/-1.2	≤1.5	100/-5/+10	≤0.6	≤0.4	4-7	20~35	0.3
National Standard																					
Green Iron Oxides	5605			Mixture	+/-0.5	+/-1.2	+/-1.3	+/-1.2	+/-1.2	≤1.5	+/-1.2	+/-1.3	+/-1.2	+/-1.2	≤1.5	100/-5/+10	≤0.5	≤0.3	4-7	15~25	0.3
	835			Mixture	+/-0.5	+/-1.2	+/-1.3	+/-1.2	+/-1.2	≤1.5	+/-1.2	+/-1.3	+/-1.2	+/-1.2	≤1.5	100/-5/+10	≤0.5	≤0.3	4-7	15~25	0.3
National Standard																					
Blue Iron Oxides	8707			Mixture	+/-0.5	+/-1.2	+/-1.3	+/-1.2	+/-1.2	≤1.5	+/-1.2	+/-1.3	+/-1.2	+/-1.2	≤1.5	100/-5/+10	≤0.5	≤0.3	4-7	15~25	0.3
Colorful Series																					
Red Iron Oxides	110 CS80															100 +/-5	≤1.0	≤0.5	4-7	15~25	
	130 CS80															100 +/-5	≤1.0	≤0.5	4-7	15~25	
	190 CS80															100 +/-5	≤1.0	≤0.5	4-7	15~25	
	110 CS90															100 +/-5	≤0.5	≤0.3	4-7	15~25	
	130 CS90															100 +/-5	≤0.5	≤0.3	4-7	15~25	
	190 CS90															100 +/-5	≤0.5	≤0.3	4-7	15~25	
Colorful Series																					
Yellow Iron Oxides	313 CS70															100 +/-5	≤1.0	≤0.5	4-7	28~40	
Colorful Series																					
Black Iron Oxides	330 CS90																				
	330 CS80															100 +/-5	≤1.0	≤0.5	5-8	15~25	
Colorful Series																					
Brown Iron Oxides	868 CS80															100 +/-5	≤1.0	≤0.5	5-8	~25	
Colorful Series																					
Orange Iron Oxides	960 CS80															100 +/-5	≤1.0	≤0.5	4-7	~28	

Type	Grade	Mass Tone	Reduction Tone	Color Index	Specified Color Data												Specified Technical Data			Informative Data	
					Full Shade						Reduction						Water soluble content [%]	Sieve residue [%]	pH value	Oil absorption [g/100g]	Predominant particle size [µm]
					dL*	da*	db*	dC*	dH*	dEab*	Color values after matching of the tinting strength parameter Y, i.e.dL*=0 da*	db*	dC*	dH*	dEab*	Rel. tinting strength[%]	DIN EN ISO 787-3:2000 and DIN EN ISO	DIN EN ISO 787-7:2009	DIN EN ISO 787-9:1995	DIN EN ISO 787-5	Electron micrograph
Micronized																					
Red Iron Oxides	101M			PR 101	+/-0.5	+/-0.8	+/-0.8	+/-0.8	+/-0.8	≤1.0	+/-0.8	+/-0.8	+/-0.8	+/-0.8	≤1.0	100+/-5	≤0.3	≤0.01	5-8	15~25	0.2-1.0
	110M			PR 101	+/-0.5	+/-0.8	+/-0.8	+/-0.8	+/-0.8	≤1.0	+/-0.8	+/-0.8	+/-0.8	+/-0.8	≤1.0	100+/-5	≤0.3	≤0.01	5-8	15~25	0.2-1.0
	120M			PR 101	+/-0.5	+/-0.8	+/-0.8	+/-0.8	+/-0.8	≤1.0	+/-0.8	+/-0.8	+/-0.8	+/-0.8	≤1.0	100+/-5	≤0.3	≤0.01	5-8	15~25	0.2-1.0
	130M			PR 101	+/-0.5	+/-0.8	+/-0.8	+/-0.8	+/-0.8	≤1.0	+/-0.8	+/-0.8	+/-0.8	+/-0.8	≤1.0	100+/-5	≤0.3	≤0.01	5-8	15~25	0.2-1.0
	140M			PR 101	+/-0.5	+/-0.8	+/-0.8	+/-0.8	+/-0.8	≤1.0	+/-0.8	+/-0.8	+/-0.8	+/-0.8	≤1.0	100+/-5	≤0.3	≤0.01	5-8	15~25	0.2-1.0
	160M			PR 101	+/-0.5	+/-0.8	+/-0.8	+/-0.8	+/-0.8	≤1.0	+/-0.8	+/-0.8	+/-0.8	+/-0.8	≤1.0	100+/-5	≤0.3	≤0.01	5-8	15~25	0.2-1.0
	180M			PR 101	+/-0.5	+/-0.8	+/-0.8	+/-0.8	+/-0.8	≤1.0	+/-0.8	+/-0.8	+/-0.8	+/-0.8	≤1.0	100+/-5	≤0.3	≤0.01	5-8	15~25	0.2-1.0
	190M			PR 101	+/-0.5	+/-0.8	+/-0.8	+/-0.8	+/-0.8	≤1.0	+/-0.8	+/-0.8	+/-0.8	+/-0.8	≤1.0	100+/-5	≤0.3	≤0.01	5-8	15~25	0.2-1.0
Micronized																					
Yellow Iron Oxides	311M			PY 42												100 +/-3	≤0.5	≤0.01	4.5-7.5	28~40	0.1x0.4
	313M			PY 42												100 +/-3	≤0.5	≤0.01	4.5-7.5	28~40	0.1x0.4
Micronized																					
Black Iron Oxides	330M			PBk 11												100 +/-5	≤0.7	≤0.002	5-8	15~25	0.2
	700M			PBk 11												100 +/-5	≤0.7	≤O.002	5-8	15~25	0.2
Granular																					
Red Iron Oxides	101G			PR 101												100+/-5	≤3.0	≤0.1	5-8	15~25	
	110G			PR 101												100+/-5	≤3.0	≤0.1	5-8	15~25	
	120G			PR 101												100+/-5	≤3.0	≤0.1	5-8	15~25	
	130G			PR 101												100+/-5	≤3.0	≤0.1	5-8	15~25	
	140G			PR 101												100+/-5	≤3.0	≤0.1	5-8	15~25	
	160G			PR 101												100+/-5	≤3.0	≤0.1	5-8	15~25	
	180G			PR 101												100+/-5	≤3.0	≤0.1	5-8	15~25	
	190G			PR 101												100+/-5	≤3.0	≤0.1	5-8	15~25	
Granular																					
Yellow Iron Oxides	311G			PY 42												100+/-5	≤3.0	≤0.1	5-8	28~40	
	313G			PY 42												100+/-5	≤3.0	≤0.1	5-8	28~40	
Granular																					
Black Iron Oxides	330G			PBk11												100+/-5	≤3.0	≤0.1	5-8	15~25	
	700G			PBk11												100+/-5	≤3.0	≤0.1	5-8	15~25	
Granular																					
Brown Iron Oxides	868G			PBk43												100+/-5	≤3.0	≤0.1	5-8	20~35	
	610G			PBk43												100+/-5	≤3.0	≤0.1	5-8	20~35	
Granular																					
Orange Iron Oxides	960G			Mixture												100+/-5	≤3.0	≤0.1	5-8	20~35	
High-temp Resistant																					
Yellow Iron Oxides	313HT			PY 119	-0.4/+0.5	+/-1.0	+/-1.4			≤1.7	+/-1.1	+/-1.5			≤1.7	100/-5/+10	≤0.5	≤0.005	6-10	~16	0.15x0.5
High-temp Resistant																					
Black Iron Oxides	330HT			PBk33							+/-0.5	+/-0.6	+/-0.6	+/-0.7	≤0.8	100 +/-5	≤0.7	≤0.005	7-10	~16	0.6
Low Viscocity																					
Yellow Iron Oxides	920LV			PY 42																	
High Density																					
Yellow Iron Oxides	HD313			PY 42																	